REMARKS

Present Status of the Application

The Office Action mailed July 02, 2002, rejected all pending claims 1, 2, 7-11, and 13 under 35 U.S.C. 112, second paragraph. In addition, the Office Action also objected to the drawings and the specification for informalities.

In response, Applicants have amended the drawings and the specification for correcting minor informalities. Applicants have also amended claims 1, 2, 10, 11 and 13 above to overcome the rejection under 35 U.S.C. 112, second paragraph. No new matter adds by way of these amendments.

After entry of the foregoing amendments, claims 1, 2, 7-11, and 13. remain pending in the present application, and reconsideration of those claims is respectfully requested.

Oath/Declaration

The Office Action indicated that the declaration is defective because "the priority information is incomplete for the second and third documents".

Applicant respectfully disagrees. The present application claims priority benefit of three prior Japanese applications. The application numbers and filing dates of these three prior applications were identified in a table in the declaration. Because all three prior applications are Japanese applications, Applicant identified the country as "JAPAN" in the corresponding column with only one occurrence, instead of repeating three times of the term "JAPAN" following each of the three prior application numbers in the same column. May be, this is not the best or desirable way to fill out the table in the declaration. But, it is clear that Applicant claimed the benefit of these three prior applications and provided all of the required information of the three prior applications in the declaration. Thus, the declaration is not defective in this regard. Applicant believes that, at most, a clerical modification of the declaration might be needed to more clearly identify the country of the three prior applications. If the way that the priority information was presented in the declaration needs to be modified, Applicant is willing to make the modification, but with the understanding that the claim for these three prior applications was made in time and complete priority information was provided in the declaration.

In addition, on the first page of the specification, Applicant specifically stated that the present invention claims the priority benefit of Japanese application serial No. 11-275233, 11-319614, and 2000-245438. On December 13, 2000, Applicant submitted certified copies of the three Japanese prior applications to the PTO together with the declaration. All these make it clear that Applicant intends to claim the priority benefit of these three prior applications. And the priority benefit was claimed in time.

In view of forgoing, Applicant respectfully submits that the required priority information for "the second and third documents", i.e., Japanese application serial No. 11-319614 and 2000-245438, was included in the declaration and was complete.

Drawings

The drawings were objected to.

Figs. 6, 20, 23, and 24 have amended as suggested by the Office Action. Withdrawal of the objection is requested.

Specification

The specification was objected to.

The Examiner is sincerely thanked for pointing out various informalities in the specification. The informalities identified in the Office Action and other minor clerical or programmatic errors in the specification have been corrected. Withdrawal of the objection is requested.

Claim Rejections – 35 USC 112

Claims 1, 2, 7-11, and 13 were rejected under 35 U.S.C 112, second paragraph.

Applicant has amended claims 1, 2, 10, and 13 to overcome the rejection. Withdrawal of the rejection is requested.

CONCLUSION

For at least the foregoing reasons, it is believe that all pending claims 1, 2, 7-11, and 13. are in proper condition for allowance or for further examination. If the Examiner believes that a

conference would be of value in expediting the prosecution of this application, he is hereby invited to telephone the undersigned counsel to arrange for such a conference.

Respectfully submitted,

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ANNOTATED VERSION TO SHOW CHANGES MADE

In The Specification

The paragraph beginning at line 15 of page 7 has been amended as follows:

[Fig. 10 shows] Figs. 10A~10C show various cutting ways for cutting a tablet;

The paragraph beginning at line 18 of page 7 has been amended as follows:

Fig. 12 through [Fig. 17 shows] Figs. 17A~17D various views of a tablet cutting apparatus according to the third embodiment of the present invention;

The paragraph beginning at line 22 of page 7 has been amended as follows:

Figs. 19A and 19B show[s] the structure of a reception dish shown of the fourth embodiment of the present invention;

The paragraph beginning at line 3 of page 8 has been amended as follows:

Figs. [24A and 24B shows] 24A~24C show an improved structure of the tablet cutting apparatus of the fourth embodiment of the present invention.

The paragraph beginning at line 16 of page 8 has been amended as follows:

Figs.1 through Fig. 4 respectively show[s] various views from different view points, which are used for explaining structure and operations of the tablet conveying and cutting apparatus, of the present invention.

The paragraph beginning at line 19 of page 8 has been amended as follows:

Basically, the main body of the tablet conveying and cutting apparatus 1 of the present invention is constructed of three plates 2, 3 and 4, a bottom plate 6 and a top plate 7, which is substantially a box-shaped structure. The tablet feeder 8 is installed on the top plate.

The paragraph beginning at line 14 of page 9 has been amended as follows:

An oblique plate (position modification device) 18 is installed between the plates 2, 3, in which [with] one end of the oblique plate [its end] is connected [connecting] to the end of the channel 14 and the oblique plate is oblique downwards. A second baffle plate 19 is further assembled within the channel 14 between the oblique plate 18 and the baffle plate 9. The second baffle plate 19 is rotationally mounted on the channel wall 12 and extended towards the center of the arc formed by the channel wall 12. The second baffle plate 19, for example, is made of flexible and resilient material. The channel walls 12, 13, channel 14, rotary arm 16 and the second baffle plate 19 [are formed] form a so-called arranging device. Moreover, the second baffle plate 19 can, for example, be made of iron, which is mounted on the channel wall 12 and capable of freely rotating. The second baffle plate 19 is mounted on the channel wall 12 using a resilient element, such as a spring, and is protruded towards the arc center of the channel wall 12.

The paragraph beginning at line 12 of page 10 has been amended as follows:

In addition, the retainer roller 23 is connected to a roller motor [23] 31 installed on opposite side of the plate 2 through a small pulley 32, a large pulley 33 and a belt 34. Due to the rotation of the roller motor 31, the retainer roller 23 is rotated clockwise with respect to Fig. 4 at a decreased low speed[with respect to Fig. 4]. The retainer roller 23 and the supporting resilient plate 21 [are formed] form a conveying device.

The paragraph beginning at line 17 of page 10 has been amended as follows:

A rotary blade 36 is installed under the retainer roller 23 and the supporting resilient plate 21. The rotary blade is mounted on a rotational shaft of a rotary blade motor 37 installed on the opposite side of the plate 2 by a fixer 38 and located under the midst between the plates 2, 3. The rotary blade 36 is rotated counterclockwise with respect to Fig. 4 when the rotary blade motor is rotated.

The paragraph beginning at line 14 of page 11 has been amended as follows:

Pins 43A, 44A are further respectively mounted on the left ends of the sliding plates 43, 44. Each of the pins 43A, 44A are rotationally and movably received within grooves 52A, 52B on the two ends of a rod 52 connected to a shaft of a retainer plate motor 51 installed on the

bottom surface of the base plate 46. The retainer plates 41, 42, the sliding plates 43, 44, the base plate 46, the holding-down plates 47, 48, the retainer plate motor 51 and the rod 52 [are formed] form a retainer structure.

The paragraph beginning at line 20 of page 11 has been amended as follows:

As described above, as the retainer plate motor 51 rotates, the [rode] rod 52 is then rotated clockwise with respect to Fig. 6. Accordingly, the sliding plate 43 is moved right with respect to Fig. 6, while the sliding plate 44 is moved left, causing [that] the retainer plates 41, 42 are [moved separately] to be moved separately. In contrast, if the retainer plate motor 51 rotates reversely, the rod 52 is then rotated counterclockwise with respect to Fig. 6. The sliding plate 43 is moved left with respect to Fig. 6, while the sliding plate 44 is moved right, causing [that] the retainer plates 41, 42 are [moved closely] to be moved toward each other. The central line of the retainer plates 41, 42 is usually coincident to that of the plates 2, 3.

The paragraph beginning at line 8 of page 12 has been amended as follows:

The operations based on the foregoing structure are [detailed] described and discussed in detail. When an elliptical (oval) or long-circular tablet is drained piece by piece from the shoot of the tablet feeder 8, the drained (or processed) tablet M is blocked by the baffle plate 9. The direction or position of the tablet M is changed and then the tablet M falls [fallen] on the channel 14. The control device then drives the rotary arm motor 17 such that the rotary arm 16 is rotated counterclockwise with respect to Fig. 3.

The paragraph beginning at line 1 of page 13 has been amended as follows:

The tablet M almost reaches the oblique plate 18 after passing the baffle plate 19, and then [is fallen] falls along the oblique plate 18, during which the long side of the tablet is credibly perpendicular to the tablet's moving direction.

The paragraph beginning at line 4 of page 13 has been amended as follows:

Moreover, the retainer plates 41, 42 are separated from each other, the tablet is thus sliding downwards between the retainer plates 41, 42. Afterwards, the rotary arm 16 is rotated

clockwise with respect to Fig. 3 and then returned to a predetermined standby position. Furthermore, the tablet M sliding downwards on the oblique plate 18 is blocked by the shutter 22 because the shutter 22 is closed at this time.

The paragraph beginning at line 9 of page 13 has been amended as follows:

When the tablet M is blocked and stopped by the shutter 22, it is not necessary that the center of the tablet M must be coincident with the center line of the plates 2, 3. The control device first drives the shutter motor 24 for raising the shutter 22 by the cranks 26, 27, and then the retainer motor 51 is driven to move the retainer plates 41, 42 to move towards each other. The two ends of the long side of the tablet M are then respectively retained by the retainer plates 41, 42 when the center of the tablet M is coincident with the center line of the plates 2, 3.

The paragraph beginning at line 16 of page 13 has been amended as follows:

Under such a circumstance, the long side of the tablet M is perpendicular to its moving direction and the center of the tablet M is located on the center line of the plates 2, 3, i.e., the center of the tablet M is located on an extension line of the rotary blade 36.

The paragraph beginning at line 22 of page 13 has been amended as follows:

After the tablet M reaches the retainer roller 23, the tablet M is resiliently retained up and down by the retainer roller 23 and the supporting resilient plate 21 and then [is moved] moves slowly to the left with respect to Fig. 4. Namely, the tablet M [is moved] moves towards the rotary blade 36. While the tablet M reaches the rotary blade 36, the tablet M can be correctly and equally cut in half from its center because the center is [coincident] consistent with the rotary blade 36. Afterwards, the two half-cut tablets are further conveyed by the retainer roller 23 and then [fallen] fall to the reception dish 54.

The paragraph beginning at line 5 of page 14 has been amended as follows:

The thickness of the tablet M is absorbed because of the deformation of lower part of the supporting resilient plate 21. Moreover, the rotary blade 36 rotates within the grooves 21A, 23A and the tablet M is cut by the rotary blade 36 under the condition of being retained [retaining] at

the retainer roller 23, the force is thus [experienced] acted on the retainer roller 23 rather than the supporting resilient plate 21.

The paragraph beginning at line 10 of page 14 has been amended as follows:

According to the present invention, the rotary arm 16 makes the tablet M move within the channel 14 such that the long side of the tablet M is perpendicular to its moving direction. The ends of the long side of the tablet M [is] are retained by the retainer plates 41, 42. After the center of the tablet M is changed to be corresponding to the rotary blade 36, the retainer roller 12 conveys the tablet M to the rotary blade 36 for cutting the tablet M. Therefore, the position of the tablet M with the oval or rectangular shape, even other than circular shape, can be more definitely [coincident] consistent with the location of the rotary blade 36 during conveying to the blade 36.

The paragraph beginning at line 6 of page 15 has been amended as follows:

As discussion of the foregoing embodiment, the retainer plates 41, 42 are driven to be moved toward each other [closely] or apart [separately] by the crank structure consisting of the sliding plates 43, 44, the pins 43A, 44A and the rod 52. However, it is not the only structure applied to the present invention. For example, as shown in Figs. 8 and 9, a conveying belt 61 is installed from the left to the right of the base plate 46 through a pulley 66 mounted on the retainer motor 51 and a pulley 67 on the other end of the base plate 46. Through a link plate 62, the sliding plate 43 is fixed on a forward path of the conveying belt 61 and the sliding plate 44 is fixed on a backward path of the conveying belt 61. The items having the same numerals shown in Figs. 1 through 7 represent the same elements.

The paragraph beginning at line 15 of page 15 has been amended as follows:

As described above, due to the clockwise and counterclockwise rotations of the retainer motor 51, the conveying belt 61 can convey along the forward or backward path[s] such that the sliding plates 43, 44 can operate as the crank structure. Furthermore, the conveying belt can be replaced by gears and then the same operations can be achieved. In the embodiment, the base plate 46 is assembled vertically, which can further reduce the distance of the oblique plate 18 by

comparing with the previous embodiment. Therefore, as the distance of the oblique plate 18 is reduced, the falling distance down to the oblique plate 18 of the tablet m can be also reduced.

The paragraph beginning at line 1 of page 16 has been amended as follows:

Furthermore, in these embodiments, oval tablet is used to [explanation] explain the operation, but in general the circular tablet can be cut equally in half from it center in the way and no further description is made for this.

The paragraph beginning at line 10 of page 16 has been amended as follows:

As shown, numeral 16' denotes the rotary arm, numeral 16A' is the pushing plate, numeral 16B' represents a restrict level of the baffle plate and numeral 23' is the retainer roller. Fig. 13 shows a portion of the retainer roller 23'. The retainer roller 23' can be made of rubber, for example and a rugged surface is formed on the roller 23'. The rugged surface of the roller 23' can further actually retain the tablet M. Namely, as the roller 23 of the embodiment shown in Fig. 2 rotates, the tablet M is conveyed. However, the rollers between the groove 23A [is] are unnecessary to convey the tablet at the same timing. One of the roller may faster than the other, causing the tablet inclined.

The paragraph beginning at line 5 of page 17 has been amended as follows:

As shown in Fig. 16, the tablet M slides downwards on the oblique plate 18 and then blocked and stopped by the shutter 22. By the restrict level 16B', the pushing plate 16A' returns to its initial position and the baffle plate 19' also returns its initial position.

The paragraph beginning at line 9 of page 17 has been amended as follows:

Next referring to Figs. 17A and 17B, the function of the oblique plate 18 is described. As shown in Figs. 17A and 17B, the tablet M slides downwards on the oblique plate 18. Furthermore, Fig. 17C shows that the tablet M in a standing position, which it is seldom occurred by chance. Even though under the situation shown in Figs. 17C and 17D, the tablet M can be laid on and slid downwards the oblique plate 18.

The paragraph beginning at line 23 of page 17 has been amended as follows:

The retainer plates 41, 42 [are] then [moved] move towards the center (direction E shown in Fig. 16) such that the center of the tablet M is [coincident] consistent with the location of the rotary blade 36. The retainer roller 23' is then driven and the tablet M is retained by the retainer roller 23' and the supporting resilient plate 21. Afterwards, the retainer plates 41, 42 are immediately separated (the opposite direction E shown in Fig. 16) and then returned to the initial position.

The paragraph beginning at line 15 of page 18 has been amended as follows:

Figs. 18 to 24A-24C further show[s] another embodiment of the present invention, in which the same numerals represent the same elements shown in Figs 1 through 17A-17D and their corresponding descriptions are omitted. From Fig. 20, a removable device can be only installed on the opposite side of the plate 2 for simplifying the structure and easily cleaning the apparatus.

The paragraph beginning at line 1 of page 19 has been amended as follows:

As shown in Fig. 20, numeral 19' is a baffle plate fixed by a resilient element. Numeral 16' is a rotary arm, 16A' is a pushing plate and 16B' is a restrict lever of the baffle plate 19'. Numerals 41', 42' represent retainer plates and numeral 23' represents a retainer roller. The retainer roller 23' is made of rubber and a rugged structure is formed symmetrically on the circumstance of the retainer roller 23'.

The paragraph beginning at line 10 of page 19 has been amended as follows:

The rotary arm motor 17' is driven [such] so that the pushing plate 16A' can push the tablet M to move forwards. Then, as shown in Fig. 21, the tablet M is in contact with the baffle plate 19'. If the tablet M is rectangular, the long side of the tablet M is then arranged along the surface of the pushing plate 16A'. In Fig. 21, a circular tablet is shown and therefore the position of the tablet M is not rearranged.

The paragraph beginning at line 15 of page 19 has been amended as follows:

Referring to Fig. 22, the tablet M is continuously pushed by the pushing plate 16A' move forwards and then to fall down along the oblique plate 18. At this time, the pushing plate 16A' [is returned] returns to its original position by the restrict lever 16B' and the baffle plate 19' [is] also [returned] returns to its original position.

The paragraph beginning at line 19 of page 19 has been amended as follows:

The fallen tablet M is in contact with the shutter 22 and therefore blocked and stopped by the shutter 22. Then, the shutter 22 is opened and the tablet M falls to a contact position with the retainer roller 23'. Because the falling distance of the tablet M in this case is shortest, the tablet M is not jammed with the retainer roller 23'. The retainer plates 41, 42 [are] then [moved] move towards the center such that the center of the tablet M is [coincident] consistent with the location of the rotary blade 36.

The paragraph beginning at line 10 of page 20 has been amended as follows:

The retainer plates 41', 42' [are returned] return to the initial positions before the roller 23' is driven. However, as proceeded in this manner, the tablet M may be inclined at the beginning that the tablet M is retained by the roller 23' and the supporting resilient plate 21. Therefore, the retainer plates 41', 42' are controlled to separate slightly before the roller 23' is driven.

In The Claims

1. (Once Amended) A tablet conveying apparatus for adjusting position of a tablet, comprising:

an arranging device for arranging a long side of the tablet to be perpendicular to the tablet's moving direction by moving the tablet for a first predetermined distance; and

an oblique plate, coupled to the arranging device, for receiving the tablet and then making the tablet fall a second predetermined distance.

2. (Once Amended) A tablet cutting apparatus for cutting a tablet at a predetermined location, comprising:

a blade for cutting the tablet;

an arranging device for arranging a long side of the tablet to be perpendicular to the tablet's moving direction by moving the tablet for a predetermined distance;

an oblique plate, with a first end coupled to the arranging device for receiving the tablet and then making the tablet arranged by the arranging device to fall along the oblique plate, and a second end where is in vicinity of the blade;

a shutter, located at the second end of the oblique plate, for stopping the tablet fallen from the oblique plate;

a retainer device, located above the oblique plate for retaining the tablet from the long side of the tablet stopped by the shutter; and

a conveying device located above the blade, for conveying the tablet adjusted by the retainer device to a cutting location, so that the tablet is cut in half from its center.

10. (Once Amended) A tablet cutting apparatus for cutting a tablet at a predetermined location, comprising:

a rotary blade for rotationally cutting the tablet;

an arranging device for arranging a long side of the tablet to be perpendicular to the tablet's moving direction by moving the tablet for a predetermined distance, wherein the rotary blade is locate at a downstream side of the arranging device;

a retainer device, coupled to the arranging device, for retaining the tablet arranged by the arranging device from the long side of the tablet such that the position of the tablet is coincident with a location corresponding to the rotary blade; and

a conveying device located above the rotary blade, for conveying the tablet adjusted by the retainer device to the location of the rotary blade, so that the tablet is cut in half from its center.

11. (Once Amended) A tablet cutting apparatus for cutting a tablet at a predetermined location, comprising:

a rotary blade for rotationally cutting the tablet;

an arranging device for arranging a long side of the tablet to be perpendicular to the tablet's moving direction by moving the tablet along an arc channel;

a position modification device, located between the rotary blade and the arranging device, for further modifying the position of the tablet fallen from the arranging device such that the long side of the tablet is perpendicular to the tablet's falling direction;

a retainer device, coupled to the position modification device, for retaining the tablet rearranged by the position modification device from the long side of the tablet such that the position of the tablet is coincident with a location corresponding to the rotary blade; and

a conveying device located above the rotary blade, for conveying the tablet adjusted by the retainer device to the location of the rotary blade using a rotary roller and resilient plates, so that the tablet is cut in half from its center,

wherein a force applied on the tablet during cutting is similar to that applied to the rotary roller and is for setting a relative position of the rotary blade and the conveying device and a rotational direction of the rotary blade.

13. (Once Amended) A tablet cutting device, comprising:

a blade for cutting the tablet;

an arranging device for arranging a long side of the tablet to be perpendicular to the tablet's moving direction by moving the tablet for a predetermined distance;

an oblique plate, with a first end coupled to the arranging device for receiving the tablet and then making the tablet arranged by the arranging device to fall along the oblique plate, and a second end where is in vicinity of the blade;

a shutter, located at the second end of the oblique plate, for stopping the tablet fallen from the oblique plate and further rearranging the position of the tablet;

a retainer device, coupled to the position modification device, for retaining the tablet from the long side of the tablet stopped by the shutter such that the position of the tablet is coincident with a location corresponding to the rotary blade; and

a conveying device located above the blade, for conveying the tablet adjusted by the retainer device to a cutting location, so that the tablet is cut in half from its center,

wherein the retainer device is expanded within a range for guiding the tablet before the conveying device is driven.